



CALIFORNIA GARDEN

IN THIS NUMBER

A CALIFORNIA DRY GARDEN
By Elizabeth Urquhart

WHY NEGLECT OUR NATIVES
By Mrs. Howard W. Johnson

A MARKHAM ROSE JAR
By Ruth R. Nelson

SEPTEMBER, 1931

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No. 3

A CALIFORNIA DRY GARDEN

By Elizabeth Urquhart

There is no trouble at all about having a spring garden anywhere. Nature herself takes care of that, giving it plenty of water, waking up the bulbs from their winter sleep, reminding the buried seeds that resurrection time has come, renewing the foliage of trees and shrubs and looking after things generally.

One has only to walk about and enjoy the spring blossoms, both within and without the borders of the garden. But a few months later, in this land of little rain, the scene changes. Nature has withdrawn her kindly aid in the matter of water, and the garden hose takes the place of the spring rains. The garden soil gets dry and hard and the precious moisture must be conserved with continued cultivation and mulching.

Yet with all these handicaps, the gardener carries on and plants a summer garden, more or less successful according to water and location. But it takes years sometimes to learn by experience just what to plant in the summer garden, what will live through the long, rainless months, and what must be given up.

We are not considering here the large grounds where water is plentiful and where labor is available to distribute it. The problem really belongs in the small garden, where watering becomes a drudgery and which must often go without in times of drought. Along the coast regions of Central California, the moist winds and fogs are often good substitutes for water, but in the south and in the great interior valleys, the garden must be adapted to local conditions.

So in working out this problem, why should we not take a leaf from Nature's book and see how she has solved it. She has sown in the great garden of the state a host of lovely plants which have graciously adapted themselves to a rainless summer, and who have learned to carry on without water. Most of the wild flowers, of course, come up in the spring when the ground is full of moisture, but many of them bloom on through the summer, and it is just these that we want to know and invite into our gardens.

The guest of honor might well be our own California poppy, in all its spring orange glory, fading to a soft yellow in summer, and with it would be all the lovely variations that have been produced. And what could better keep it company than the lupines—white, yellow, blue and lavender? Some of them, as the blue Beach lupine, bloom all through the year.

As for lilies, there is the Washington lily and the leopard lily, both blooming into the summer, with the Brodiaeas keeping them company for a time. Then the Matilija poppy, not to be outdone by *Eschscholtzia*, poses majestically in midsummer, and the wild sunflowers bloom all through the year.

We must really make a list, even if only a partial one, of these summer bloomers without stopping to describe them. And it must be remembered that although they will live in our gardens without watering, as they have lived without rain, they respond wonderfully to good soil, cultivation and moisture, and produce bigger and better blossoms than in their native locations. The selection of them is just a question of space, color scheme and personal preference.

Wild *Bouvardia*, beach aster, brass buttons, wild roses, wild fuchsia, wild phlox, wild peony, wild clematis, chicory, western cardinal flower, Indian paint brush, giant blue hyssop, yerba buena, mimulus (monkey flower), nicotiana, scarlet larkspur, monkshood, heuchera, syringa, yucca, salvia, iceplants, hen-and-chickens.

As for the shrubs, there are:

Wild lilac, California holly (*Toyon*), *Freemontia*, *Madrona*, *Manzanita*, *sumac*, *tamarisk*, *Oregon grape*, *carpentaria*, etc.

One need not even mention cactus, or any of the great desert family, which accommodate themselves to dry and arid regions, or the large family of sedums, which do their duty whether they have water or not. I have excluded some of the lovely plants that bloom in moist and shady woodland places, as we are here considering only those native plants which are adapted to dry, rainless regions.

Patronize the Garden Advertisers.

Many of our cultivated garden plants and shrubs are drought-resistant as well as their country cousins, and if a study be made of these, a very interesting dry garden may be achieved without calling on nature's nursery.

One would have to give up most of the annuals, on account of the shallow roots, with the exception perhaps of petunias, marigolds, verbenas and centaureas, and rely more on well-established perennials.

Geraniums are very gracious about blooming without water, and some varieties of roses, too, will adapt themselves to drought, particularly if cultivated and mulched. Among the drought-resistant perennials are:

Wallflowers, Alyssum, Gazania, Nepeta musini, Shasta daisy, Tritoma, Pyrethrum, Valerian, Heuchera, Anchusa, Periwinkle, Laven-der, Gaillardia and Hollyhock.

For the dry garden one must exclude Hydrangeas, Cannas, Japanese Iris, Dahlias, Chrysanthemums and all plants which depend for their happiness and well-being on water, though if possible, one can manage a corner or a bed for favorites hard to give up, where the baby's bath water can be poured, or the hose allowed to run for a limited time once a week. Cannas and Japanese Iris, in the absence of a plentiful supply of water, may be successfully raised in sunken tubs or half barrels, with perforated bottoms, out of which the water drains slowly, and whose rims may be bordered with sedums and ice-plants.

As for ground covers as substitutes for lawns, there are a few which do not require much water or even any, after the young plants are once established. *Lippia repens* while drought-resistant, is injured by frost, and is at its best only when occasionally watered or in moist regions near the coast. But periwinkle may be depended on to do its duty in sun or shade and with or without water, also mesembryanthemum (ice-plant) and, for a shady place, wild strawberry.

A most satisfactory substitute for a green lawn is a brown lawn, and if bordered with green shrubs or trees it is most beautiful. It is achieved by uprooting in the spring all the tall weeds, wild grains and coarse growth, leaving only the low, more delicate growth. This is done year after year and the lawn is cut and raked as though it were blue grass. After awhile there is a soft, velvety surface with lovely brown lights playing over it, and recalling the soft brown California hills in summer.

At any rate one may have a summer garden without water, if only the list of summer guests is carefully made out, and one is sure they will adapt themselves to dry conditions.

Editor, California Garden:

The estate of Mrs. A. S. Bridges on Point Loma has long been a center of interest as one of the most beautiful gardens in this vicinity. It will, therefore, be of special interest to all rose lovers to know that Mrs. Bridges is at present constructing a formal rose garden. It will contain grass walks and artistic beds. Many of the best known roses will be included, and it will be one of the largest privately owned, as well as one of the most beautiful gardens of its kind in Southern California.

J. A.

THE ROAD NORTH By Walter S. Merrill

(Continued)

To us, naturally, next to the wonderful natural scenery, the parks and gardens which we visited were of paramount importance in our trip. Having lived for some years in Southern California, where semi-arid conditions—especially the lack of humidity in the atmosphere—almost offset the advantages of a continuous growing season and the absence of killing frosts, we looked forward to a lushness of growth and a brilliancy of color in bloom that we strive to attain with our shade-houses and our continual watering. Nor were we disappointed—except in a few things.

Lawns are far superior to the best that we can grow. Bent grass holds up in the summer; blue-grass takes on a richer green than here, and numerous ground-covers—English ivy, ajuga, pachysandra, vinca, etc.—were remarkably fine. I did not, however, see helixine used as we are able to use it. Herbaceous plants, both annuals and perennials, grow with much greater vigor, show more healthy foliage and much larger and more brilliantly colored blooms, with a few exceptions. North of San Francisco the calendulas were surprisingly poor and faded; the mimulus hybrids were very pale; pent-stemons were more ragged and scrawly even than with us; and sweetpeas were almost everywhere decidedly second-rate. However, the delphiniums, stocks, phlox, hollyhocks, zinnias, asters, campanulas, foxgloves, Oriental poppies and above all the godetias were glorious, and made us realize that herbaceous borders are for us only a luxury to be had by the expenditure of endless labor and money—and then with but mediocre success.

On the other hand, despite the countless pages of advertising of the Northwest as a Paradise for the rose-grower, it soon became plain to us that we can, in San Diego, grow roses so far superior to anything that we saw in Oregon, Washington or British Columbia that there is no comparison. Some years ago one of America's leading rosarians said in a public address that we could, in San Diego,

grow roses better than in any other place in the world that he had visited. At the time it seemed like a pretty large statement; but after seeing the best roses that Portland, "The City of Roses," had to offer, I believe that it may be quite true. Take away American Pillar, Dr. van Fleet, Mme. Edouard Herriot and Caroline Testout,—and there is not much left to enthuse about. I did not go in the height of the blooming season, but I saw the bushes, and nowhere (except in the home garden of Dr. DePuy in Tacoma and in Mr. Pasquill's nursery in North Vancouver) did I see them growing with enough vigor to produce at any time a good crop of first-class blooms. What blooms I did see were far below standard in color, size and substance.

However, roses are but one family and should not have been too much missed when there were such gorgeous herbaceous borders, such lush lawns, such magnificent trees and shrubs. True, there were not as many flowering trees and shrubs as we have; but, too, these were not so much regretted—so lovely was the foliage of the conifers and the broad-leaved evergreens. Of the latter, the English Holly and the rhododendrons (out of bloom at the time of our visit) were the most striking. Magnificent specimen hollies were seen everywhere north of Portland, and the holly hedges were of almost unbelievable perfection. Never in the world have I seen such hedges as those of holly in the Shaughnessy Heights section of Vancouver.

The conifers are almost endless in variety—the best, naturally, being those native to the country. Junipers, cypresses, cedars, firs and hemlocks were very fine, and some of the pines were beautiful. The deciduous trees were not as good as they would be were the winters colder, but still it was a pleasure to see the oaks and elms attaining to something of the grandeur which they achieve in the lands of winter ice and snow.

In this short article it is possible to do little more than mention a few of the outstanding parks and private gardens that we visited. In Santa Barbara (to begin while we are still in Southern California) the garden of Mrs. Oakleigh Thorne is one of the loveliest. The house, an Italian villa facing toward the sea, looks over an extremely beautiful formal garden of perfectly clipped hedges and formal plantings. One large bed is wholly of standard heliotropes, too perfect to seem real; and a balancing bed is of standard fuchsias that also seem too good to be true. To the left of the formal garden, a long arroyo, well shaded with huge old sycamores, is a stream-bed that slopes gently down to a large grove of trees; and on the right a grove of giant live-oaks gives shade to pools and beds of begonias and ferns. A large formal rose-garden and many smaller

gardens round out an estate that must be a constant joy to its possessor.

Another Santa Barbara garden—that of Mrs. Cameron Rogers—is especially noteworthy for its specimen trees. Planted upwards of fifty years ago,—and with more artistry than was common among garden owners of that period—it is an object lesson to us of today. The best part of the garden is a gently sloping rocky knoll of about an acre. This is made up, apparently, of large boulders and very little soil. It is almost completely shaded by enormous live-oaks, among which are planted a great many palms (principally cocos and seaforthia) under which, again, are beautiful tree-ferns, brakes, sworn-ferns, begonias and bleeding-heart, with a thin ground-cover of English ivy. Many winding walks through this part of the estate open up the most charming shady vistas. In other parts of the garden are huge specimens of cedrus (atlanticus and libani), carobs, Monterey cypress, pittosporums and an acacia cultriformis forty feet high and with a thirty-foot spread. Also there are enormous aloes and agaves, hydrangeas and beautiful specimens of hibiscus and oleander.

Golden Gate Park in San Francisco is too well known to all of us to need more than the statement that the genius of Mr. McLaren has built one of the great parks of the world on what was nothing but the barrenest and most worthless stretch of sand-dunes. Personally, I wish that it might have more of the contrast that the white Spanish buildings give to our Balboa Park, and that there might be longer and broader vistas which its size should make possible. However, it is very lovely, and perhaps it is only my prejudice that makes me feel that it is a trifle monotonous.

We visited four gardens near Saratoga that merit especial mention. Mrs. Fremont Older's owes its distinction to a very lovely pool and garden-house surrounded by a beautiful rose-garden. The reflection of the roses in the water, as seen from across the pool, is not to be forgotten. "Hakone," the home and garden of Mrs. F. W. Leis, is wholly and authentically Japanese. Situated on a high joint jutting out into the lovely Santa Clara Valley, it has spread before it a splendid panorama of valley and mountain that must be fascinating when, for miles and miles, the fruit trees are in bloom. Everything is in the best Japanese style, which means that the keynote is simplicity, and that the comparatively few pools, bridges, stone ornaments, trees and shrubs are all nearly perfect specimens. Not having visited Japan, I can say that I have never seen such fine Japanese maples, weeping mulberries and dwarfed conifers. Best of all, possibly, were the wonderfully perfect dwarfed prostrate junipers.

Mr. Mortimer Fleischacker's home—"Green Gables"—is quite different. A lovely

low house, that seems actually to have grown out from the hill-top amongst the big live-oaks, looks over the park-like grounds and across the valley to the heavily forested mountains. Everything is so quiet and restrained and home-like. The one distinguishing feature that is still too new to have grown quite into the picture is a long, broad flight of stone stairways leading down a steep slope to a very long pool that is treated in a formal way. Yet the artistry with which the semi-rustic materials have been employed will, with the passing of a very few years, knit this lovely piece of gardening into the very charming whole.

Perhaps the most remarkable garden that I know in California is that of Dr. and Mrs. Scannavino, also in Saratoga. This covers at present, sixteen acres of mountain-side, and includes two steep and narrow canyons. Such a situation has meant the use of an immense amount of rock wall to support the terraces; and these walls have been so carefully planned and so beautifully constructed in the true spirit of the Italian rural garden, that they add much to the charm of the place. Dr. and Mrs. Scannavino are real collectors, and they have a marvellous botanical collection of horticultural rarities. I doubt whether there is a private or public collection in the state that equals theirs for completeness and for diversity. And I am quite positive that there is no collection so beautifully arranged; for both the doctor and his wife are true artists, and take as much pride in achieving a lovely new planting effect as they do in acquiring the rarest specimen plant. One canyon is devoted to a large collection of rare ferns, and the other contains their much-prized collection of rhododendrons. A little knoll, somewhat apart, is covered with small plants from many lands that are the envy of all enthusiastic plant collectors. And real collectors are not encouraged to browse about there too freely. And high above all is a lovely grove, with barbecue pit and comfortable tables and benches, where friends are entertained when the busy day is done, and the mountains across the valley reflect the light from the setting sun.

Salem, Oregon, is an old town, and there are many fine old gardens to be seen from the highway—with wide-branching shade-trees and green lawns—that reminded us much of good gardens in the old New England towns, as seen in early summer.

Washington Park, in Portland, is typical of the parks of the Northwest. Situated on rather steep hills, it is mostly planted to conifers, although there are some beautiful gardens and wide stretches of lawn. A lovely outdoor theatre is one of the attractive features of the park. The back-ground and wings of the stage are hedges of lawson cypress, beautifully

clipped, and fully eighteen feet high. Heavy plantings of *viburnum tomentosum* are notably fine.

The most elaborate private garden in Portland—and probably in the Northwest—is that of Mr. Lloyd Frank on Palatine Hill. This is a garden of large size, of great luxury in appointments, and beautifully planned in layout and detail. It is far too large to describe here; but mention must be made of the magnificent sloping lawn bordered by large trees; the very large swimming pool surrounded by pavement of oblong sandstone blocks with dwarf sedums between; an excellent small rock-garden; a formal rose-garden of three acres, beautifully laid out but making a very poor showing of rose-bushes; many fine glass-houses for growing specialties, and conservatories filled with exotics (especially notable are the crotons), much crowded together, and with hundreds of the finest tuberous begonias that I ever saw. Of the notable plants, those that I recall especially were *lilium willmottii* (hundreds in a narrow planting against a soft pink brick wall), the best *salpiglossis* that I have chanced upon, *lilium rubrum* growing to perfection, great quantities of *astilbe gloria*, and scores of *thalicttrum dipterocarpum* nine to twelve feet tall and with bloom spikes of over five feet.

Olympia, Washington, is planning a very fine park around the new state capitol building. But it shocked me to learn that, in order to grade the land to an even slope, they are planning to sacrifice trees that have required centuries to reach their present perfection.

Tacoma has a beautiful park—Fort Defiance—that borders Puget Sound and rises abruptly from the shore with hills that are heavily wooded with native conifers. Back from the Sound are fine open stretches of lawn and garden, and many open plantings of splendid specimen trees and shrubs. The hollies here are especially good, and I saw a native maple with a trunk three feet in diameter. A sassafras tree is growing thriftily, imported from New England, and an unusually attractive lily pond is worthy of mention. Here I saw a new golden *thuya*—named George Washington by its discoverer, Dr. DePuy, who found it growing on Mt. Rainier. It has lovely feathery foliage of a true golden hue, and will some day become a feature of our gardens. And here I saw the only good sweetpeas that I saw north of Eureka, where they thrive to perfection.

The garden of Mr. Weyerhauser, in Tacoma, is built on a very steep declivity and is most notable for its specimen shrubs (especially of the prostrate junipers and of Irish Yew), for very fine beds of mauve and white *viola*, and for an extremely dwarf strain of sweet alyssum used in great profusion. Contrast of light and shadow, rather than color, is the keynote here.

It is a medium sized garden so carefully planned as to give the impression that it occupies several acres.

Seattle's principal park—Woodland—is not especially interesting or distinctive. It has, of course, fine trees and broad lawns, and a large and beautifully laid out rose-garden of two or three acres. The trellis around the rose-garden was gorgeous with American Pillar and Dr. van Fleet, but the beds of dwarf roses within had little to excite the rose-lover. I saw in Seattle no noteworthy private gardens. Undoubtedly they are there, had I been able to find them. Yet, even had I found them, I fear that they would have mostly taken on the form of rock-gardens; for the people of the Northwest have become rock-garden crazy, and most of the front, side and rear yards that I saw were thickly strewn with small rocks of about equal size, with scattering plants between. All cut to the same pattern and varying little except in size, they soon become extremely tiresome.

In Vancouver the private gardens, again, were not especially interesting. They are, however, much larger and far better cared for than in the cities further south. The love for good gardens seems to have been brought by the English when they came to Canada, and no doubt there are very lovely gardens in Vancouver which I did not see. The holly hedges here are incomparable; the lawns are very fine; good specimen trees abound, although it is a very young city, and a few trees have reached maturity; the most marvellous *godetia* in the world, I think, is to be seen here everywhere,—in beds, in borders, and even used as low hedges. But here, too, the rock-garden mania is not suppressed by law, and rages everywhere in every conceivable mis-use. In the true English fashion, the grounds are made to be lived and played in, and we saw many partly given over to tennis-courts, bowling-greens and clock-golf greens. Such things can be done in a land where lawns do not have to be pampered.

But Stanley Park is unforgettable. Occupying all of a small peninsula, heavily wooded with virgin timber, that juts into the Sound from the very busiest downtown section, it rises—clean and green and beautiful—from the blue water that almost surrounds it. A fine drive encircles it close to the water's edge, and other drives cut through its cathedral-like forest. Near the entrance is a large formal sunken garden, a mediocre rose-garden, and a rock-garden that is true to its name and completely satisfying. This rock-garden is in a narrow, shallow ravine that meanders along beneath the trees for several hundred feet. It is sparsely strewn with most naturally placed boulders of considerable size, with now and then a charming pool, and the whole is planted

with a splendidly chosen variety of plants, large and small, that have the appearance of growing there naturally. On either side are big specimen rhododendrons and enormous brakes ten feet tall and more. In this rock-garden the campanulas and Regal Lilies beggar description, the wall-flowers are very fine, and a pink-flowered plant (*astrantia carnifolia*) is charming. But most remarkable to me were the five-fingered ferns (*adiantum pedatum*) in clumps four to five feet across and two feet high. This is a rock-garden that the gardeners of Vancouver and Seattle should study carefully after destroying the rip-rap work now so common.

Victoria, famous for its Butchard Gardens—which are really twenty-five miles from the city—has many fine smaller gardens. Most notable of these is Mrs. Pendray's. Her back garden is a large lawn sparsely shaded with apple-trees. A lovely rose arbor planted with American Pillar, beds of yellow *calceolaria* and others of white shasta daisies topped with pink hollyhocks, and long beds of the finest Japanese iris that I ever saw, add color to a quiet and home-like, secluded yard. But the topiary work in front and on either side of the house really makes the garden famous. About thirty specimens of topiary work are, so I am told, considered the best examples of this type of garden art in America. These represent birds, animals and furniture, and are clipped from various plants—yew, holly, juniper, boxwood, thuya, laurel, *laurustinus* and even *cedrus deodora*. They are all over thirty years old, and are so realistically conceived and trimmed that I was correct even in my guess that one plant represented a badger—and I had never seen but one live badger. Just why one should desire to have a garden of this sort, I cannot say; but having one, it must be very gratifying to know that it is so extremely good of its kind. Standing tall and dignified among the birds and beasts is a magnificent *auricularia imbricata*, the true Monkey Puzzle Tree.

The Empress Hotel is set in a large garden that is very fine. A lovely miniature rock-garden denotes the gardener as a man of good taste and much restraint. Broad lawns and specimen trees—principally holly—add dignity and distinction. Hundreds of feet of American Pillar roses on trellises show a solid mass of bloom. And everywhere are beds of flowers of gorgeous color—chief of which here, as almost everywhere in the North, are the hybrid *godetias*. Under glass are very rare exotics; *medinella magnifica* and *aechinanthus* would make our shade-house enthusiasts envious, tremendous vines of *stephanotis* and *allamanda* carry hundreds of blossoms, and *bougainvillea* and *solandra gutata* grow almost as vigorously as with us out-of-doors.

(Continued on Page 14)

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REPORT OF AUGUST MEETING

The regular meeting of the association was held in the Floral Building in Balboa Park, Tuesday, August 18th, 1931, at the usual hour of 7:30 o'clock p.m. Mrs. Greer, president of the association, presided; and after a few remarks about the fall show to be held August 22nd and 23rd, promising to be one of the best ever held by the association, she introduced Mr. Wamsby of Pacific Beach, who gave a most interesting talk on succulents, and their use in rock gardens.

Mr. Wamsby brought with him a number of growing plants, which were disposed of at the meeting by number previously drawn. Each specimen, as its number was called, was explained by the speaker and a little advice given the holder of the ticket as to how to plant and care for it. In the course of his talk, some 50 or 60 specimens were left with the members present.

It was interesting to know some of the peculiar habits of succulents, how they grow

along streams, on mountains and in arid country, in dry localities storing up enough moisture in the stem or leaf to carry through the dry to the rainy season.

Those who attended the meeting were well repaid—not only by hearing a talk of unusual interest, but through the generosity of the speaker in contributing so large a supply of plants. Mr. Wamsby was ably assisted by his wife, who in most gracious manner distributed the plants to the lucky holder of the number.

The next meeting was announced for Tuesday, September 15, at the usual hour and place.

A. S. HILL.

EASTERN FLOWER SHOWS

Mr. Barnhart writes as follows from New York on Sept. 7th: The Flower Show to be held at Atlantic City was described for publicity by a "hot air artist," I thought, in his efforts to tell horticulturists what it would be like. I went down to see it yesterday and have to say that the fellow failed utterly to convey to the mind of any one, the magnificence of the displays. They were beyond words of mine at least, to describe the glorious grandeur of most of the exhibits.

The Suttons of England had an exhibition of vegetables only, and such an exhibit as it was. I never saw anything like it. I guess that we shall have to go to England to learn how to grow vegetables.

Well, do you know that when we remain at home and look at the work of our hands which, if they turn out well we begin to think that there is none better of its class in all the world. It is necessary, absolutely necessary for us to get away from home occasionally to see and learn what the other fellow is doing and how he does it, to disabuse our minds of some erroneous notions that are sure to creep in. The immensity of the show was amazing, to say the least. The Auditorium is a large one, the floor space said to cover four acres. That statement taxes my credulity. My guess is that two acres of exhibits would be about right. I shall not argue that point.

Doubtless you have heard of Robert Craig Co. of Norwood, Pa. Their advertisement in The Florists' Exchange is a modest little one but their exhibits, the word must be used in the plural, when reference is made to their part of the show. A display of each of the following plants and all of them exceptionally well grown; Crotons, Pandanus, Dracaenas, Palms, Ferns and one with all these mixed in artistic arrangement. To cap the climax on all this beauty, they had a landscape scene, the size of which was about 25x50 feet. For beauty of design and artistic arrangement it was beyond comparison to anything that has ever come under my observation; for it they were awarded a gold medal.

Patronize the Garden Advertisers.

Dahlias were superb. A variety new to me was what the exhibitor is pleased to call orchid flowering. A single type with narrow petals, arranged around the disc after the manner of the blades on a wind mill. It is a novelty, all right.

The glads were fine. Burpees of Philadelphia and Elmer E. Cove of Burlington, Vt., showed great quantities of them. I think that the northern-grown flowers were a bit the best.

Last month I visited the Garden of Flowers that Burpees have founded at Doylestown, Pa., and there saw the finest glads that ever I laid my eyes on. Cove has issued the best catalogue of glads that I have seen. A picture on the back of it shows a field of large size of the plants. Up in Oregon they grow this bulb by the hundred acres and I am beginning to wonder where the industry is heading for. Surely glad enthusiasts can't use all the corms grown by all the growers of the United States.

On Sept. 19th I start for Los Angeles.

PETER D. BARNHART.

AN ATTRACTIVE GARDEN

On August 23, the members of the Floral Association availed themselves of the pleasure of accepting the kindly invitation of Mr. and Mrs. F. F. Edelen, of Loma Portal, to visit their interesting and attractive garden.

Our first view of the place revealed the fact that the planning and planting of this garden was the work of no unskilled gardener, but that of an expert landscaper, who had made the place appear much larger than it really is. Upon entering we noticed on each side of the walk leading to the house a fine bush of *Buxus japonica* and on either side of the steps a *Dracaena indivisa*. To the right is an informal planting of shrubs, ferns and small rock plants all in a flourishing condition. In this group were three varieties of *Pyracantha*; *P. coccinea* var. *lalandae*, *P. crenulata* and *P. yunnanensis* full of ripened berries, *Escallonia langleyensis* covered with delicate pink flowers, a *Dovyalis caffra* (Kei Apple), *Sollya heterophylla* (Australian Blue-Bell), *Lantana camara*, var. *flava* (Yellow Lantana), *Duranta plumieri* (Golden Dew-drop), *Abelia grandiflora*, a *Thuya occidentalis pyramidalis* and a *Arecastrum roman-zoffianum*. Of special note among the smaller plants was a *Cyrtomium rochfordianum* (Holly Fern), also a *Woodwardia chamissoi* (Chain-Fern), and a *Salvia farinacea* (Mealycup Salvia), and a *Campanula isophylla* covered with its blue flowers.

After enjoying for a time this interesting group and discussing the pleasing arrangement and the many good points of individual plants, we strolled down the driveway where to the left was an *Eugenia myrtifolia* hedge about ten feet in height, while on the right along

the foundation of the house were several varieties of *Impatiens sultani* and fuchsias. Around the corner of the house we came upon two fine, symmetrical Italian cypress trees (*Cupressus sempervirens*), standing like sentinels guarding the entranceway. At the rear of the house is a rose garden enclosed by a low hedge of Japanese boxwood. Opposite this were two *Thuya occidentalis dumosa* about eight feet apart, the space between covered with *Verbena*. The rest of the rear yard consists of a formal plot of grass surrounded by *Vinca rosea* var. *alba* (Madagascar Periwinkle), a number of Rex and fibrous begonias, dwarf zinnias, fancy-leaved caladiums, *Calathea Zebrina* (Zebra Plant), coleus and various types of small ferns, while the background is composed of a large *Duranta plumieri*, *Cotoneaster pannosa* and two gorgeous *Bougainvillea spectabilis*, var. *Crimson Lake*. In one corner is an attractive bird bath and in another a stone bench. On the lawn were comfortable seats where we sat and talked, being served by our hostess with delicious punch.

After resting a short time we sauntered to the cactus garden, located at the west of the residence, where we found a graceful *Pittosporum phylliraeoides* overshadowing several opuntias. Here were *O. basilaris* (Beaver-tail), *O. leptocaulis*, *O. microdasy*, *O. subulata*, *O. ursina* (Grizzly Bear), *O. monacantha* and its variegated form. *Aloe ciliaris*, *A. zebrina*, *Cotyledon orbiculata*; *Byrnesia weinbergi*, *Portulacaria afr.*; *Haworthia margaritifera*, *Euphorbia splendens* (Crown-of-Thorns), *Sedum album* and *S. dasphyllum*, *Sempervivum calcareum*, *Echervia glauca*, *Crassula perfoliata* and *C. tetragona*; *Aeonium arboreum* and *A. arboreum* var. *atropurpureum*, *Othonna crassifolia*, *Stapelia hirsuta*, *Trichocereus spachianus*, *Bergerocactus emoryi*, *Epithelantha micromeris*, *Cereus hexagonus* and *Terocactus wislizeni*.

It will perhaps be remembered that this garden has been a prize winner in the Garden contests of 1929 and 1930, as evidenced by the two plaques displayed near the bird bath, and we hope in the near future to see a third one added, which will win the silver trophy.

—C. I. Jerabek.

AN ENJOYABLE AFTERNOON

On Sunday, September 6th, the Cactus and Succulent Society of America had the pleasure of holding their annual San Diego meeting at the Rock and Water Gardens of Mr. and Mrs. Lewis Walmsley of Soledad Terrace.

Upon the arrival of the guests, about 1 p.m., Mrs. Walmsley, who proved a most gracious hostess, served an excellent lunch of three kinds of sandwiches, snails (not the garden variety), delicious punch, and coffee.

The inner-man being satisfied, the meeting

was called to order by Mr. Boyd C. Sloane, who gave a short but interesting talk, which was followed by a general discussion of cactus pests and their control. Mr. Walmsley then gave an instructive talk upon the construction and care of rock gardens and the plants best adapted to that form of garden.

After the conclusion of the program, many of the guests remained for a more prolonged and intimate inspection of the thousands of interesting plants of the gardens, while others availed themselves of the opportunity offered of going on a sight-seeing tour of the cactus gardens of the city. Time being very limited, only a brief stop at each of the gardens could be made; just a teaser, as some one remarked.

The first stop was at the garden of Miss K. O. Sessions, also on Soledad Terrace; then away to the place of Mr. and Mrs. H. C. Dunning, of Loma Portal. Here the guests seemed much more impressed by the beautiful lath house collection of begonias and ferns than by the many fine cacti.

At Mr. Thomas Hamilton's everyone being very enthusiastic about Aloe Hill, the desire to ascend to the top of the hill could not be resisted. There was time for only a glimpse of the many things that one would like to spend hours among, but it was a case of *tempus fugit*, and *tempus* can fugit mighty fast when one knows he has more on hand than can possibly be accomplished in the allotted time.

Next on the list was the site where, for the first time in California history the American flag was raised, in Old Town Plaza. Here were viewed two large, well-kept beds of cacti, aloes, agaves and various succulents.

Through the courtesy of Mr. T. P. Getz, Ramona's Marriage Place stood open to the society. The outstanding plants in his collection are a large *Aloe ferox*, an *Indria columnaria* and a good sized clump of *Euphorbia canariensis*. Then followed visits to the homes of Mrs. Grant and Mrs. Brock, whose charming places have not only beautiful cactus gardens but give a wonderful panoramic view of the bay and Point Loma in the distance. Miss S. C. Brock's cactus garden also has an added charm in its wonderful view of Mission Valley and the mountains to the north. El Prado Cactus Gardens on 5th Avenue were next and here each visitor was given a booklet describing the various plants to be seen.

After a short drive through Balboa Park several commercial places were called upon, the last of which could be seen only with the aid of electric lights. Darkness precluding visits to three other places listed, naught could be done but to call it day's end, journey's end, and homeward wend, full to the brim of sights, sounds, and pleasant memories.

From the many remarks of appreciation heard on all sides, it is safe to conjecture that

all felt deeply indebted to Mr. and Mrs. Walmsley, who have undoubtedly won many new friends as well as boosters.

C. M. WILLIAMS.

RARE PLANTS WITH COLORED FOLIAGE

By Fidella G. Woodcock

One of the plants exhibited at the Fall Flower Show, curious and effective, was the *Rhoeo*, of the Wandering Jew type similar to *Tradescantia*, a tropical genus with about 300 species.

Tradescantia zebrina, the striped spiderwort, is a jointed, creeping plant with bars of two, three and four colors on the surface of the showy leaves. The plant roots at the joints and being herbaceous is used in hanging baskets and by planting cuttings in borders, where they will spread and mingle happily with other strong growers. The Peruvian species are larger and more showy than most others.

Rhoeo and *Zebrina* are both near relatives of *Tradescantia* but have been separated from the parent on account of certain structural differences in the seed.

This group of plants is microscopically a wonderful study in biology. On the filaments, the fine threads of the stamens that carry pollen, there are hairs that show rows of bead-like cells, well-known in science as protoplasm.

These spiderworts are sometimes used as a study in protoplasm, the first visible substance seen in living things—the life in the cells.

The root is sheathed with a warty covering that is cast off on germination. The characteristic of *Rhoeo* and of *Zebrina* both is in the inflorescence, separate from the plant. It is an umbrella-like cluster of white or red-purple flowers in a little boat springing from the radicle. This boat is formed of two bracts joined together and resembles a cradle. It comes from the jointed root from which the name Wandering Jew is derived, and is sometimes called "Moses-in-the-Cradle."

These plants belong to *Commelinaceae*, a family much resembling the lilies. The parts are in threes and regular. But the ovules and embryos differ, the number of seeds are fewer than those in liliaceous plants, and occasionally the fruit is a nut.

Various species of *Commelina* are planted in landscape gardens in which blue flowers are used. Of these, *Commelina coelestis* vars. *alba* and *variegata* from the mountains of Mexico are desirable in our gardens. In the north they are warmhouse plants.

Species most common are: *Commelina communis* (widely distributed), *nudiflora* (outdoors), *tuberosa* (border plant. (Tubers to be lifted in autumn and kept in dry sand.)

Plants of the group: *Tradescantia*, *Commelina*, *Dichosandra*, *Rhoeo*, *Zebrina*, *Anellema*.

Some people class *Rhoeo* with the *Bromeliads*, that is the pineapple.

The Garden

By Walter Birch

To continue instructions of August for raising plants from seed, the grower must necessarily learn by experience the amount of shading and watering required for the best germination of the different species of plants.

Pansies, for instance, must never be allowed to become dry, and on the other hand, stocks are likely to damp off if the seed boxes are kept too wet.

While talking of seed planting, it comes to my mind that there is a powder on the market called Semesan, which every amateur gardener should have, because its value for the treatment of bulbs, plants and seeds has been proven by many of the largest professional growers in the country and a 50c can is enough for the average small garden. Many of our seeds and bulbs carry germs, microbes, etc., that are absolutely invisible to the naked eye, that prey upon the vitality of seeds and bulbs, and are a tremendous handicap to the production of really first grade flowers. Semesan fights these unseen enemies of plant life very successfully, and is easily applied to seeds, bulbs, etc., before planting. It is particularly effective in preventing damping off.

In setting out your seedling plants from the boxes in which they are raised, it is very necessary to have them strong and stocky, so that it usually pays to transplant them into other flats prepared in the same manner as the first, planting them one inch apart and allowing them to become strong and sturdy before planting them where they are to grow.

At this writing our summer weather is still unusually warm for San Diego, but the nights are, as usual, longer and cooler, so that the ground will also be gradually cooling off. It is, therefore, important to remember that if you want strong, thrifty plants for winter and spring growth you should get your seeds in the ground at once, so that when your plants are set out they will have time to make a good start before conditions of soil and air are much colder.

This applies also to bulbs such as Freesias, Amaryllis, Spanish Iris, and others, and if you wish to have gladioli blooms around the holidays, plant the bulbs not later than end of September or first week in October. If planted later when soil conditions are cold they will not bloom until spring or early summer. It is important when planting gladioli to use large bulbs so as to get more flower stalks, and be

sure to get bulbs that are ready to plant; this means that they should be dug from sixty to ninety days before being planted, otherwise they will lie inactive in the ground for months before starting to grow. We (Harris Seed Co.) have sold many thousands of high class gladioli bulbs the past season at 50c per dozen, that a year ago would have cost \$1.50 and \$2.00 per dozen.

Speaking of Tropical Fruits—many people who are not interested in the ordinary fruits of the country are turning their attention to the more uncommon ones that are known to be successfully raised here, such as the Cherimoya or Custard apple, the Papaya and the Sapota. The Papaya or tree melon is often planted as an ornamental tree, as it is quick growing and beautiful. It is usually planted in groups of three or four trees to insure production of fruit. It will produce fruit in less than a year from time of planting, and at two years old should bear from fifty to one hundred pounds. The tree grows like a palm, no limbs, only mammoth leaves, the blossom and fruit forms on a stem which hangs just above each leaf joint, average weight of fruit being from one to three pounds and can be eaten as a melon, used in a salad or made into pies, and is highly thought of for its medicinal qualities. The young trees are inexpensive and bear fruit so quickly that they should be worth while and September is a good planting month.

STONES IN IOWA BRING \$1 A BUSHEL

COUNCIL BLUFFS, Iowa—Common stones of the field are selling here for \$1 a bushel, which is considerably higher in price than either corn or wheat. Frank Hecht, nurseryman and florist, says that since spring began he has sold what would be almost a carload at this price, and the demand continues.

The stones are used for making rock gardens here, where stones as they lie over the land are scarce.

"We prepared for this sale of stones last fall," said Mr. Hecht. "Then we went up toward the Minnesota line, gathered the stones into piles, and, when there was time for it, we did the hauling in motortrucks. We estimate that the aggregate would have filled a big railroad box car, and now they are nearly all sold."

So far as known it is the first time ever that common stones have been offered here for sale in bushel lots.—Christian Science Monitor.

WHY NEGLECT OUR NATIVES?

By Mrs. Howard W. Johnson

It is said that a distinguished horticulturist from England in visiting some of the show places among California's gardens remarked upon the few native California trees and shrubs in cultivation.

This is, indeed, a serious indictment, and the pity of it is that we must "acknowledge the corn." It is not at all surprising that a horticulturally inclined Englishman should note our very moderate interest in this type of planting when we reflect that our California Holly, otherwise known as *Heteromeles Arbutifolia* or Toyon, was introduced into England more than a century ago by a questing Englishman and is grown there under the name of California Maybush. Many another native California native tree and shrub, long neglected or little known here, is tenderly cherished in the gardens of our British cousins, and one who has come to know these splendid things at their best can well understand the amazement of visitors from over there who find us neglecting them for less valuable subjects.

As one who has for the past five years been striving with the native vegetation of California, it is most gratifying to note the slow but persistent growth of the interest of the public in these things. This growth is a quiet one. It has not swept our state as has the vogue of the Cactus Garden, but there is evidence that there is a slowly crystallizing interest in native trees and shrubbery that will flourish long after the day of the cactus has passed. Just a little more effort on the part of the better informed landscapers, a little more knowledge of the average nurseryman, a little more open discussion of the merits and beauties of California's distinctive plant life, and in a little while we shall have sold the "natives" to Californians for all time.

There have been numerous reasons for the long-existing apathy on the part of growers and planters toward these things. The first reason is that few, if any, of the native shrubs are easy of propagation.

The average nurseryman probably has at some time in his career "taken a flyer" in natives, realizing the beauty and value of them quite as well as anyone, but his efforts at propagating them have too often been destined to failure. There has been little information at his disposal concerning proper methods of handling, and the conspicuous few who have grown them successfully have perfected their present knowledge through the painful and costly trial-and-error system. Practically all of this class of plant life is temperamental in the early stages of growth, though delightfully hardy when they have passed the infant stage, and few have had the patience to seek

the requisite knowledge concerning them.

This, however, is a condition that is happily passing. The cult of the native shrub in California is decidedly waxing, and because demand has always created supply the growers are inevitably falling into line. Just so long as the public was satisfied with the commonplace *Coprosma*, *Lantana*, etc., they would be forthcoming. But does the public demand *Ceanothus* in its many forms, *Fremontia*, *Dendromecon*, *Toyon* and others, then they, too, shall be forthcoming.

It is true that there are still those among us who regard all native vegetation as more or less weeds. The truth of the matter is that these are no more to be included among the weeds than are pansies, peonies or pittosporums. The annual and perennial wild flowers are, many of them, quite as worthy of cultivation in our gardens as are the stocks, snaps and calendulas we feel we cannot get along without, and some are so much more easily managed than certain of our petted annuals that it is a pity more is not known about them.

With social reference to the herbaceous native plants one could not do better than to quote verbatim from one who is among the foremost exponents of the native plant in its myriad forms, Mr. Theodore Payne of Los Angeles.

"The extent and beauty of California's native flowers is just becoming established in the minds of the average home gardener. For many years they were thought of only as "wild flowers," not suitable for planting in anyone's garden, and it is only upon the noticeable lack of them the thought occurs that they are beautiful after all, and well worthy of a place under our particular sun. Their charm lies not only in their exquisite colors and delicate textures, but in the romance and personality they give to a garden—they mean something more than just "some flowers"—and, having much in common with garden varieties as regards habits and types of growth, they can be used in much the same manner in creating any given effect. Where severe soil or climatic conditions exist they furnish a means of beautification that would otherwise be impractical, if not impossible, yet given the care that would be required where the garden flowers are used, they respond with readiness and vigor that is not comparable."

There is a lure in the names of many of these. Consider "Innocence," "Morning Radiance," "Indian Paint Brush," "Red Maids," "Red Ribbons," "Summer's Darling," "Farewell-to-Spring," "Tidy Tips," "Baby-blue-eyes," "Sun Cups," "Owl's Clover," "Scarlet Bugler," "Blue-eyed Grass" and many others. Of course these are only their play names. Each one has a perfectly good book name, but who among us wouldn't prefer "Owl's Clover" to *Orthocarpus Purpureus*? or "Red Maids"

to *Calandrinia menziesii*? And who would not find it simpler to say "Blue-eyed Grass" than *Sisyrinchium Bellum*?

So much for the annuals and herbaceous shrubs. But what of the great array of shrubs of more tree-like aspect that grace the hills and valleys of the state? What of the trees that have made California famous in yet another way? It is true that every now and then we hear some one remark that California has so few trees, and we wonder if they spend most of their time in deep-sea fishing.

But to return to native shrubs in the cultivated planting. No one who has seen the *Ceanothus* in bloom in spring in California will ever forget it, and no one who has ever grown one in his own home grounds will ever be without one. So many varieties to choose from, and all of them veritable clouds of beauty in their season. *Ceanothus cyaneus*, deepest blue of them all, with its large trusses of delicately fragrant bloom, is perhaps the most sought after. It blooms a little later than the other varieties and under cultivation has been known to continue in flower into September. This quality is one that goes far to make it the favorite. There are many types of growth in the *Ceanothus* family so that a variety can be found for practically every purpose. The color range is from white down through many shades of blue, with now and then a pink showing up.

In cultivation their needs are few, but clearly defined. While they are delicate, it is true, in their infant stage, a plant that has reached a foot in height will be safe to set out. They must have a well drained location, they do not like fertilizer and they do like northern exposures, though they do very well anywhere provided the drainage is right.

To enter into a description of even a few of the best native shrubs California offers to us is impossible. Lester Rowntree, dealer in California Wild Flower Seeds at Carmel, tells us that there are more than twenty varieties of *Ceanothus* found in California, so that no matter where we may be located we may be sure there is a variety that will suit our needs. However, to close without some mention of one of the most splendid of all our native shrubs is impossible. That one, we believe, is *Fremontia Mexicana*, a rather tree-like shrub, with crinkly, dark green leaves, lobed like a fig leaf, but not more than two or three inches across. The bush is a stately thing and the bloom is magnificent, coming in April and continuing into summer. The flower is single, from two to three inches wide, a deep orange color with waxy petals, the reverse of which are streaked with crimson. It responds to light watering, likes a well drained, gravelly soil and a warm spot in the sun. It is ideally used as a complement to the deep blue of certain of

the *Ceanothi*, and is only one of the many splendid things we may delight ourselves with, if we will but give a little attention to some of nature's gifts to California.

WATER GARDENS

Bertha M. Thomas

A pool is now almost as much a part of the new home, as the living room or that pretty green enamel ware of the kitchen. The cost is little—or much—as you desire, or your pocketbook dictates.

The water proof cement is often used in the construction, but it is more expensive, and the common cement gives you the same result if you use aerated lime in the proportion of 10 pounds to one bag cement. As soon as a form is removed from cement work wash over with a solution of the cement thinned with water to a working consistency. This will fill in all the little interstices of the walls. When this is dry make a salt solution using rough salt and as much as water will absorb, with which brush over the inside walls thoroughly. This does the "curing," because the salt counteracts the alkaline matter of the lime in the cement. Even if you have not added the extra lime, there is a certain amount in all cement. The somewhat current idea that one must leave water stand in a pool for two weeks, then drain off and fill with fresh water before putting in plants—or fish—is not at all necessary. As soon as the this salt wash is dry we always fill with water, put in fish and plants and all is O. K. I have built many pools, and have never lost a fish from putting them in immediately. Once I put fish in without even the salt wash, as an experiment and they swam merrily on their way—simply refused to own to any "cure" being necessary. One possible reason is that I always put in the water plants along with the fish, and the growing of the plants absorbs the deleterious matter which the cement may leave. So many people come for lilies who have so conscientiously wasted two weeks' time while waiting to develop their water garden, that we wish to give them the benefit of our experience. Also we hope you have chosen a full-sun location for your pool. Water lilies will not bloom in shade. A few aquatics will—such as *Pondetaria*, although never so satisfactorily. Of course if the pool is in the lath house you have a choice from some which do not need sun—Water Lettuce, Water Fern, Shell plant, and many others from the submerged class. A few catalogues still speak of making your new pool with plants directly planted in soil in bottom of pool, but I have never seen it work nicely except in wild large ponds. In a garden pool there is a rank growth of leaves and few blooms. Then the fish keep the dirt disturbed and one cannot change water or fertilize the lilies without great in-

convenience. But if you love your large pretty gold fish, do not empty the pool oftener than once a year; that much is necessary to clean out the muck from the decayed vegetation and also the objectionable water animals which always "just come." Fish naturally live in a dirt bottom—they need it if they are to keep healthy, and bring you their happy families. The water will look green for a few days, caused by climatic conditions usually, but will clear itself except under unusual circumstances.

If your hardy lilies are getting lazy at this time, pep them up by giving a top dressing of Blood and Bone and they will again give more blooms before their winter rest. The tropical varieties always bloom much later, since they did not begin to work as early in the spring.

FINNY TRIBE SUFFERS ILLS SIMILAR TO HUMAN RACE

By Nelda Perry

Why do goldfish die? Why do they appear to weary of existence, float dejectedly to the surface and gasp their last fishy gasp? It is a sad and discouraging sight to say the least, but it isn't just because the fish is tired of it all, and it isn't very often the water. Something is very wrong somewhere.

Observation plays a large part in solving goldfish mysteries. Also it is very easy. In a glass aquarium there is no place in which a shy or miserable small fish can hide itself. It is possible then to know almost immediately when anything goes amiss with one, although of course it is necessary to know what to look for.

In the first place, try to obtain as healthy fish as possible for they are frequently diseased when acquired. Watch them carefully before making a choice and choose one that is swimming normally and carries its fins erect like little sails. Limp, drooping fins are a sure sign of illness. There should be no growths or abrasions on the skin.

Before fish are introduced into the aquarium with others, they positively should be quarantined and observed for one or two weeks. In this way it is easy to determine if any disease is present and prevent the infecting of others. One diseased fish can infect a whole aquarium.

Gill congestion is often found among fish that has been overcrowded in shipping. It is a form of suffocation and a condition is contracted that corresponds to pneumonia in humans. The gills become inflamed, red, and swollen and extend beyond the gill covers. A white spot is always present at the end of the nose. The remedy for this is to place the fish in shallow water that contains one-half teaspoonful of salt to a gallon. Then once each day put it in a solution of one teaspoon of salt to one quart of water and keep it in for five minutes. Continue the treatment until it is well.

The most common disease is white fungus. It is detected by drooping of the fins and a white scum over the body. It begins on the fins and tail and extends over the body to the gills where it becomes fatal. It is a parasite that destroys the fins and prevents the natural functions of the skin. Death is by suffocation. This disease is in all water and fish in weak condition contract it, or an injury to the skin may furnish an opening. The treatment for this is the salt bath the same as for gill congestion, until the fins stand erect.

Then there is the fish louse. Now what reason is there for a fish louse? Nobody knows, but there it is. A terrible bloodthirsty creature from the size of a pinhead to a split pea. Mr. Galloway, member of the Aquarium society, who has extensively studied gold fish and tropical fish, describes the louse invasion of the pool or aquarium as one of the most disastrous things that could occur. He says:

"New fish are often noticed to be swimming erratically, darting back and forth, often near the surface. And this emphatically is not a game. They aren't playing. Watching them, they appear to scratch their sides against plants or rough surfaces. This is an indication of the itch and the itch is an indication of an attack of lice. It is impossible to treat the water, for anything strong enough to kill the louse would kill the fish also."

These lice are almost transparent. They have many legs, two pairs of eyes and are remarkable swimmers. The fish must be removed from the aquarium and all the parasites carefully handpicked off of them. A pair of sister's eyebrow tweezers will be found excellent for this operation. A sore is often left where the louse was attached leaving an opening for fungus or other parasitic diseases.

There is more work to be done than that, however, according to Mr. Galloway.

"If in a pond, all water plants and soil must be removed and the sides and bottom thoroughly scoured with sulphuric acid solution. Wash all the plants well and replace them in new soil. The aquarium is treated in the same manner and the clean fish replaced."

Among the short bodied fan tails and other high bred fish, constipation is common. It occurs mainly in aquariums from cramped quarters and too rich food. The excrement, when healthy, is light brown in color and in long sections. Constipation is usually fatal. Too prevent it, mix a little Epsom salts with their food. It should be fed once or twice a month regularly to highly bred fish in aquariums.

Fish that have difficulty in swimming straight and even float upside down are victims of swimming bladder trouble. Causes are unknown and there is no definite cure. Dropsy is manifested by a swelling body and the scales standing out. The fish is not depressed until

a few days before its death. There is no cure.

It is not difficult to provide the correct environment for fish if their requirements are understood. Too much disinfectant in the water will kill the fish, but this is avoided if the water is drawn and allowed to stand a week before fish are put in it. This is particularly true of outside pools. Also, they do not like an alkaline water but prefer an acid condition. In the aquarium there should be a few submerged plants to give off oxygen and several surface plants to provide shade. In the outside pools, lilies usually give the shade and the surface area is great enough to be sufficiently aerated by the breezes blowing over it.

Many goldfish deaths are caused directly by overfeeding. Goldfish are notorious gluttons and will stuff themselves, so care must be taken to give them just a very little of the prepared food once a day or every other day. Excessive amounts of food will ferment in the water and cause sickness. Rice wafers and white bread should never be fed as they are deficient in food value and the yeast in the bread also causes fermentation. Mosquito larvae are the natural food of fish and when they can be obtained, nothing is better. These "wigglers" can be fed any time and the fish cannot get too much of them.

Flies are good, also, and a tiny bit of scrapings from a fresh beefsteak is fine. Earthworms should be scalded before fed to kill the germs that are prevalent in all soils. Sick fish are greatly helped by a fresh food diet and their color becomes brighter and more iridescent because of it.

Do not change the water in an aquarium or pool. It is good for months and water should merely be added as evaporation requires. Place the aquarium in a lighted position but not in direct sunlight. The sun often turns the water green and also heats it too much. Goldfish should not be in water of a temperature of more than 65 degrees.—San Diego Union.

CACTUS CULTURE FROM SEEDLINGS IS NEW PASTIME

'Watson, My Glass!' Amateur Gardener Cries When 'Detecting' in Spiny Clan

Cactus culture from seed is the latest occupation of amateur gardeners. All the equipment one needs is a few shallow pans, a certain soil mixture, and a magnifying glass to enjoy to the full this new horticultural pastime.

The pans need only be about two inches deep and five to six inches in diameter. The bottoms are covered with a good layer of gravel or bits of broken pottery. The soil to be used consists of two-thirds good peat or leaf mould and one-third coarse sand. After each pan is filled, level off the mixture with a flat piece of wood and sow the cactus seeds. Barely cover them with some of the soil mixture, sifted very

fine. Then use the board again to firm them down.

Cactus seed planted in this manner may, of course, be watered with a fine spray but many find it preferable to allow the pans to set in water until their surfaces become damp.

The easiest way to prevent the pans from drying out too suddenly is to arrange them in a frame packed with moss. Bottom heat can be provided in such a frame, if desired, and a muslin or paper easily can be stretched over the top to prevent additional drying out.

Some Germinate Speedily

Some varieties of cactus germinate in a few days. Among these are the Mammillarias and Echinocastix. The Cereus and Opuntia are slower. Important points to remember are even temperature and even dampness.

Ten days or three weeks after germination, the little seedlings are picked out in other pans of soil made up in the same manner as the seed pans. A pointed piece of wood the size of a pencil is used for the "pricking out." Small holes one-half inch apart are dipped into the new pans of soil. Use a small wooden fork, if you can find one, to lift the seedlings from the seed pans and transfer them to the holes, pressing them in with the pointed piece of wood.

Place the pans with the transplanted seedlings back into the frame and proceed as before with their care. The next stage comes when the seedlings are large enough to pot.

The magnifying glass is not only an interesting adjunct to the cactus seed bed; it is useful as well to check the growth of the young plants.—San Diego Union.

OUR NATIVE CACTI

By Ethel Bailey Higgins

(A. T. De La Mare Co., Inc., 1931; \$2.50)

With its quaint linen cover, numerous beautiful illustrations, excellent typography and interesting contents, this is an enticing volume, the appearance of which will surely signalize a further widening of popular interest in this, our most picturesque group of plants. Strictly, the book does not confine itself to the natives alone, for the chapter on culture is a very comprehensive one, and there is a further one on "favorites" which is devoted to some of the more striking Mexican and South American species so dear to the fancier. We must take this as but incidental, however, and the two chapters devoted to our own species, one of them covering the Opuntias and the other the Cereus group, are sufficiently detailed so that we suspect the book will find a welcome from those whose affection for the plants operates only when they are seen in their native haunts quite as well as from those who find their keenest enjoyment in growing them. Photographic illustrations are given of many species and are commendably clear and charac-

teristic. One informing chapter is given over to "questions and answers," and at the end is appended a useful list of cacti native to this country with a hint of their distribution.

S. S. B.

THE ROAD NORTH

(Continued from Page 5)

Beacon Hill Park has little of distinction; but Victoria has, in its place, the famous gardens of Mr. Butchard. These gardens, of about twenty acres, have been made mostly in an abandoned lime-stone quarry. The ground is very uneven, but has been so skilfully laid out and divided by plantings of trees and shrubs that the area seems several times what it actually is. Not only is the garden a thing of exquisite beauty, but it is also a real museum of rare plants and a test-garden for novelties. Here I saw for the first time *mecanopsis baileyi*,—famous for the difficulty experienced by most in growing it. It is not nearly as lovely as its pictures, and it will matter little to me whether it flourishes or not. The flowers are large stars of a rather sickly blue, and the foliage is very poor. But its cousin, *mecanopsis integrifolia*, is like a bright yellow matilija poppy, and I hope to grow some some day. The list of attractive novelties which I saw and of which I took notes is far too long to catalogue here. But I must mention one big tree (a *pseudoplatanus* from China), with a silvery trunk and foliage of a crushed raspberry color; for—standing against a background of deep green and grey conifers, with an emerald lawn beneath—it was the outstandingly beautiful thing of the garden. There is a good Japanese garden, a real rock-garden and waterfall, a long pool bordered with petunias, long beds of violas backed with wall-flowers, a bed of unnaturally large snapdragons (Majestic strain), great masses of American Pillar roses on beautifully designed white trellises; these things stand out clearly in my memory. But above all is the thought that this is a private garden; that Mr. and Mrs. Butchard make their home right in the midst of it; and yet that everyone is welcome to come any day in the year and enjoy it with the utmost freedom and with every convenience for comfort and pleasure. And hundreds of people, every day, do come and enjoy the hospitality of these fine people, whose public spirit and unselfishness is unparalleled in my experience among gardens.

And, for the purpose of this article, here ended a pilgrimage of two thousand miles to parks and gardens and scenes of natural beauty; a pilgrimage that brought to us everywhere great pleasure and satisfaction. Meeting fine people; seeing fine gardens and parks and glorious views of mountain, woods and shore;

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finding very little that was disappointing—we returned to San Diego with new courage and fresh inspiration to try to do things better than we have done them in the past.

A MARKHAM ROSE JAR

By Ruth R. Nelson

When we find in a magazine like Collier's Weekly a lengthy article setting forth the proper arrangement of flowers, together with detailed advice in regard to the most desirable sorts of flower containers, we must admit that these are subjects of universal interest.

Some years ago a man by the name of Markham, who had made a hobby of his rose garden, began to experiment with the making of pottery in order to procure flower containers which would display his beloved roses without, at the same time, obtruding vase-form and color upon the observer's eye.

Beginning with Mr. Markham's first rose jar, roughly fired in the fireplace of his own home at Ann Arbor, this personal hobby grew into a successful pottery business which resulted in some 9000 extremely artistic pieces. Even before tuberculosis compelled Mr. Markham to move to California, the serial numbers

upon his signed pieces had passed the 6,000 mark. Re-established in National City, California, his work continued until his "signing off" some years ago.

The Markham pieces were beautifully shaped, some by the wheel, but most of them in moulds. Early experiments with glazing brought many unexpected results in coloring; but this phase had long since passed the experimental stage before his work was ended. No two pieces of the Markham pottery are exactly alike. Each of the 9000 or more, bears its own number in the catalogue. Hence my four pieces, signed "Markham" and bearing the serial numbers of 13+G, 3870, 6334 and 6341 have a unique value because they have no duplicates.

In my rose jar numbered 13+G, which must be one of his earliest (and unsigned) experiments, Mr. Markham had already produced an ideal color for rose arrangements. This is a jar with a six-fluted lip which holds rose stems erect without stiffness. The color is a softly shaded moss-green overlying rich soil-brown. The jar has a slight glazing which adds a velvety texture to its leaf-green, and provides a perfect foil for the dark foliage and blossoms of graceful Hoosier Beauties, erect Golden Emblems or lovely Los Angeles buds.

In regard to glazing, the Markham pieces show many and varied results. My 3870 is a small reddish bowl with a dull finish marvelously shaded with dark leaf-brown. Number 6334 is a dark dull green; number 6341 is much the same color, but has a glowing finish far removed from the bright shiny glaze usually seen on flower containers, others of these jars are small, and perfectly formed for holding just one or two stems alone.

We flower lovers, who take equal pride in the masses of bloom which our California gardens produce, and a single blossom suitably displayed, can perhaps feel the truest appreciation for an artistic project such as the Markham pottery which found its original inspiration in the deep love of the artist for the roses which grew in his own Ann Arbor garden.

GASTROLEA

Reprinted from The Journal of The Cactus and Succulent Society of America. Vol. II, No. 3, pages 303-307, September 1930.

(Continued)

Culturally these plants require the same treatment as Aloe and Gasteria, preferring partial shade and somewhat more moisture than will suffice desert-cacti. They may be increased by means of off-sets or by rooting leaf-

cuttings, which last should be detached with the basal sheath intact.

In conclusion we give a provisional definition of the generic characters, which are of course subject to modification as further flowering material comes to hand. A key to the commonly grown forms follows, as well as a list of the several consequent new combinations.

*GASTROLEA. New Genus.

Generic Definition

Plants all hybrids of Aloe and Gasteria, the Aloe-species mostly concerned being *A. variegata*, *A. aristata* and *A. striata*.

Rosettes, spiral, mostly caespitose, stemless or nearly so;

Leaves variously spotted or tuberculate, cartilagineous-denticulate, usually trigonous or keeled on back;

Inflorescence lateral, simple or branched, lax racemose;

Flowers stalked, nodding or spreading;

Pedicels slender, elongated;

Bracts scarious, about as long as pedicels;

Perianth slightly or not swollen at base, often more or less recurved above the middle, reddish at base, greenish towards apex;

Segments often much longer than the tube, at tip spreading or recurved;

Stamens and style scarcely protruding;

Fruit not seen.

Type-species: *G. x pethamensis* (Baker) E. Walther.

Differences between the parent-genera and these hybrids:

Gasteria has a perianth with usually much inflated tube longer than the perianth-segments, whereas the hybrids, as far as observed in flower, have a scarcely inflated perianth with segments much longer than perianth-tube;

Aloe usually has prominently toothed leaves; grown *A. striata* and *A. variegata*, of which the latter differs as indicated in the following key, while true *A. striata* never has blotched leaves.

*Gastrolea—derived from Gasteria and Aloe, dropping or rearranging some of the letters for the sake of euphony.

GASTROLEA.

Key to the Forms Here Treated

- A. Leaves quite smooth except at edges, spots immersed.
- B. Leaves in three spiral ranks.
 (*A. variegata* L.)
- BB. Leaves in spirally rank-ranked rosettes.
- C. Lvs. to over 3 inches wide at base, purplish-green, with marginal teeth few and remote, and blotches transversely confluent; basal offsets few or none. *G. x smaragdina*.

CC. Lvs. less than 2 inches wide at base, pale-green, marginal teeth many, crowded, spots longitudinally confluent; basal offsets numerous **G. x mortolensis.**

AA. Lvs. with tubercles more or less prominent, i. e., warts protruding on surface as well as at edges.

B. Lvs. ending in long awn or bristle at apex; rosettes without basal offsets, but ultimately dichotomously dividing

..... **(A. aristata Haw.)**

BB. Lvs. shortly pointed; rosettes copiously proliferous.

C. Lvs. 8 to 12 inches long, 1½ to 2 inches wide at base **G. x pethamensis.**

CC. Lvs. 3 to 4 inches long, rarely over 1 inch wide at base.

D. Lvs. with superficial tubercles blunt, marginal teeth acute **G. x beguinii.**

DD. Lvs. with tubercles of surfaces sharply pointed as well as the marginal ones.

..... **G. x perfectior**

List of Species; with New Combinations

Varieties prefixed with * grown locally.

-x *bedinghausii* (Radl.) new comb.; Radl. in Mon. f. Kakt., 1896:24; Berger, Pflanzenreich, 178. (Said to be cross between *A. aristata* and *G. nigricans*.)

*-x *beguinii* (Radl.) new comb.; Radl. in Mon. f. Kakt., l. c.; Berger, l. c., 177. (Raised by Abbe Beguin, parentage uncertain.)

-x *chludowii* (Beguin) new comb.; Mon. f. Kakt., 1896:24; Berger, l. c., 178. (Grown by Abbe Beguin, with *G. verrucosa* as one parent.)

-x *derbetzii* (Hort., Berger) new comb.; Rev. Hort., 1894:147; Berger, l. c., 198. (Cross of *A. striata* and *G. acinacifolia*.)

-x *imbricata* (Berger) new comb.; Berger in Wien. Ill. Gztg., 1893:194; l. c., 192. (Perhaps hybrid of *A. variegata* or *A. serrulata* with *Gasteria* sp.)

-x *lynchii* (Baker) new comb.; Baker, Gard. Chron., 1881:15:266; do., 1901:29:199, fig. 76; Berger, l. c., 198. (Raised by Irwin Lynch at Cambridge from *A. striata* and *G. verrucosa*.)

*-x *mortolensis* (Berger) new comb.; Berger, l. c., 191. (Perhaps *A. variegata* and *G. acinaciformis*.)

-x *peacockii* (Baker) new comb.; Baker, Jour. Linn. Soc., 18:195, as *Gasteria*; (*Aloe heteracantha* and *G. acinacifolia* var. *ensifolia*; not to be confounded with *Aloe peacockii* Berger, which is a form of *Aloe abyssinica*.)

*-x *perfectior* (Berger) new comb., Radl., in Mon. f. Kakt., 1896:24; Berger l. c., 177. (*A. aristata* and *G. verrucosa*.)

*-x *pethamensis* (Baker) new comb., Baker, Jour. Linn. Soc., 18:194; do., in Flora Capensis, 6:301; Gard. Chron., 1841:183. (Hybrid originated by Mr. Ricketts, garden-

er for Mr. W. H. Baldock, Petham, from *A. variegata* pollinated by either *G. carinata* or *G. verrucosa*; type of the new genus.)

-x *prorumpens* (Berger) new comb.; Berger, l. c., 177. (Raised by Abbe Beguin; parents not given.)

-x *quehlii* (Radl.) new comb., Radl., Mon. f. Kakt., 1896:27; Berger, l. c., 178. (Distributed by Haage & Schmidt, origin not stated.)

-x *rebutii* (Berger) new comb.; Berger, l. c., 191. (*A. variegata* and *Gasteria* sp. of Sect. *Parviflorae*.)

*-x *smaragdina* (Berger) new comb.; Berger l. c., 190. (Perhaps *A. variegata* and *G. candicans*.)

Literature

Baker, J. G.—see Journ. Linn. Soc., Gard. Chron., Flora Capensis.

Berger, Alwin—see Pflanzenreich, Wien. Ill. Gztg.

Flora Capensis—By Harvey & Sonder, etc. (J. G. Baker) Vol. 6.

Gardeners' Chronicle, The—London (J. G. Baker) 1841.

Journ. Linn. Soc.—Journal of the Linnean Society, London (J. G. Baker).

Mon. f. Kakt.—Monatsschrift fur Kakteenkunde, Berlin. (Radl.)

Pflanzenreich, Das—By A. Engler. Vol. 4:38:3:2. Liliaceae-Asphodeloideae-Aloineae; by Alwin Berger, Leipzig, 1908. (In Latin.) The most important source.

Revue Horticole—Paris, 1894.

Wien. Ill. Gztg.—Wiener Illustrierte Gartenzeitung. 1893. (A. Berger.)



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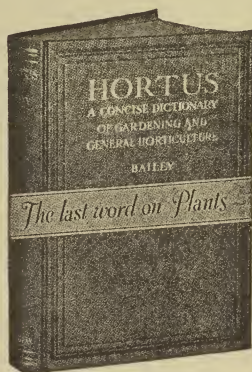
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